

# Unparalleled Cleanliness. Maximum Process Flexibility.

## EcoCvela



**EcoCvela modular multi-chamber cleaning system with flexibly configurable process stages for aqueous component cleaning.**

Shown here is an EcoCvela M, with each EcoCvela system individually configured to customer requirements.

In industrial manufacturing, the demand for clean components, reliable processes, and flexibility is constantly increasing. Custom-designed cleaning solutions are necessary, especially for complex component geometries, large batch sizes, and growing cleanliness requirements.

The EcoCvela is an expansion of the standard range of aqueous chamber cleaning systems at the high end. Thanks to its modular design, it can be precisely adapted to specific production conditions. Its various working chamber sizes, multiple chambers, flood tanks, and process stages allow it to be configured as a high-performance solution for a wide range of applications and industries.

The EcoCvela offers a high degree of process flexibility for meeting demanding cleanliness requirements, even in the high-purity range, with combinable cleaning and drying processes and integrable high-purity options.

- + Modular system design with high flexibility:** Flexible configuration of reaction chambers, flood tanks, and process stages enables a system design tailored to specific requirements.
- + Combinable cleaning and drying processes:** Integration of spray, immersion, ultrasonic, and PPC processes, as well as hot-air, vacuum, and infrared drying.
- + High capacity and throughput:** Processing of large batches and components, as well as parallel processing through multi-chamber designs.
- + High-purity-compatible design:** Specific features such as electropolished surfaces, HEPA filtration, and high-purity media enable applications in high-purity environments.
- + Easy integration into automated manufacturing:** State-of-the-art control systems, process visualization, and remote diagnostics support transparent and stable production.

## FEATURES AND BENEFITS

- High capacity and performance when increasing batch size, weight, and throughput
- Faster, energy-efficient cleaning process: High-performance, frequency-controlled pumps minimize unproductive downtime
- Precise positioning of the product in front of the nozzles using a frequency converter with an absolute encoder for accurate cleaning and drying of parts with complex geometries
- High-performance, frequency-controlled flood pumps designed to create turbulent fluid flow for optimal chip removal, as well as for controlled flooding of sensitive parts through power reduction
- Heating capacity tailored to specific requirements for drying and Aquaclean, and flow rate of the flood pumps
- Full-flow filtration ensures reliable compliance with high cleanliness requirements
- Flexible use of a wide range of aqueous immersion cleaners tailored to the cleaning task
- Optimized media guidance for effective reduction of carryover
- Long service life: A high-performance filter unit reliably removes particulate contaminants from the aqueous solution
- Vertical, cylindrical flood tanks with a Klöpper bottom, ideal for handling fluctuating pressure loads during filling and emptying operations and for preventing the accumulation of dirt
- Aquaclean system (evaporator) for energy-efficient heating of the flood tanks through heat recovery and reduced water consumption
- High-quality insulation to reduce heat loss
- Environmentally friendly, wastewater-free system operation with regular bath changes
- Simple and safe machine operation: 12-inch color display with intuitive icons
- Modular design and versatile system configuration
- Customizable loading solutions for specific needs
- Ease of maintenance: Large access panels ensure quick access to service-related components

## TECHNICAL DATA

System dimensions	EcoCvela M	EcoCvela L	EcoCvela XL
Width, approx.	5,490 mm	6,960 mm	8,090 mm
Depth, approx.	2,000 mm	2,500 mm	3,400 mm
Height, max.	2,955 mm	3,605 mm	3,605 mm
Loading height, approx.	900 mm	930 mm	1,200 mm
Weight, approx.	6.5 tons	9 tons	11 tons
<b>Basket Data</b>			
<b>Standard dimensions (L x W x H)</b> Customizable upon customer request	650 x 470 x 300 mm 650 x 470 x 400 mm	1,350 x 480 x 400 mm 1,250 x 600 x 400 mm	1,250 x 600 x 600 mm 1,250 x 800 x 500 mm
<b>Batches</b>			
Batch weight, max.	200 kg	300 kg	500 kg
Throughput, approx. depending on working chamber size, processes, and required treatment time	3–5 batches/hour	3–4 batches/hour	2,5–3,5 batches/hour
<b>Connected load</b>			
Electrical power	80–200 kW		
Heating capacity of flood tank	15–81 kW		
Heating capacity of hot air dryer	27–54 kW		
Vacuum pump performance, approx.	280–400 m <sup>3</sup> /h		
Flood pump capacity approx.	60–160 m <sup>3</sup> /h at 2.7–3.4 bar		